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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,925	08/05/2003	Richard Hull	B-5190 621139-0	1058

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HEWLETT-PACKARD COMPANY  
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P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

CAI, WAYNE HUU

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/635,925

Applicant(s)

HULL ET AL.

Examiner

Wayne Cai

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 9-22 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-22 and 24-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This Office Action is in response to Amendment dated March 06, 2006.

The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

### ***Allowable Subject Matter***

1. The indicated allowability of claims 1, 14, 16, and 29 are withdrawn in view of the newly discovered reference(s) to Honda et al. (US 6,477,353 B1) and Sato et al. (US 2004/0027619 A1). Rejections based on the newly cited reference(s) follow.

### ***Claim Objections***

2. **Claims 1, 16, and 29** are objected to because of the following informalities:

On lines 6-8 of claim 1, and lines 6-7 of claim 16, recites "keeping a record on an on-going basis of which mobile devices in said space, if any, hold or are likely to be holding the data item." The Examiner respectfully requests the Applicant to change "if any" to "when" because "if any" is very uncertain. In addition, "likely to be holding the data item" could render the claim indefinite because mobile device is not necessary holding any data item, and the specification does not specify how "likely" (i.e., the distance, time, etc.,) the system would have to keep a record of these mobile devices.

On line 15 of claim 29, "if this is unsuccessful" should be changed to "when this is unsuccessful" because the claim is read as "if this is unsuccessful, causing the second

retrieval means to retrieve the data item", but what is going to happen when "if this is successful". Whereas, "when this is unsuccessful, causing the second retrieval means to retrieve the data item" would only limit or connect the action associate with the second retrieval means to retrieve the data item when this is unsuccessful.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claim 11** recites the limitation "said enquiry" in line 2.

**Claim 12** recites the limitation "said enquiry" in line 2.

There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-2, 4, 9-12, 15-17, 19, 24-27, and 30** are rejected under 35 U.S.C.

103(a) as being unpatentable over Honda et al. (hereinafter "Honda") (US 6,477,353 B1) in view of Lehikoinen et al. (hereinafter "Lehikoinen") (US 6,847,823 B2).

**Regarding claim 1**, Honda discloses a method of retrieving a data item to a mobile device carried by a first user visiting a real-world space, the data item being available from a service system to mobile devices of users visiting the space, the method comprising the steps of:

(a) seeking a record on an on-going basis of which mobile devices in said space (col. 5, lines 24-57), if any, hold or are likely to be holding the data item (col. 6, line 61 - col. 7, line 17 );

(b) seeking to retrieve the data item to the first user's mobile device by requesting transfer only from mobile devices that, according to said record, hold or are likely to be holding the data item (col. 7, lines 9-17 teaches information is transferred to the mobile station C605 via the mobile stations other than the stations A601 and B603 means that other mobile stations that are holding or likely to be holding the data item that is needed to transfer to mobile station C605).

Honda fails to disclose:

(c) in the event that (b) is unsuccessful, retrieving the data item to the first user's mobile device by transfer from the service system.

In a similar endeavor, Lehtikainen discloses a system and method for accessing local services with a mobile terminal. Lehtikainen further discloses in the event that is unsuccessful, retrieving the data item to the first user's mobile device by transfer from the service system (col. 7, lines 1-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve the method of retrieving the data item by having an alternative option to retrieve data if the first option fails.

**Regarding claim 16**, Honda discloses an arrangement for retrieving a data item to a mobile device carried by a first user visiting a real-world space, the data item being available from a service system to mobile devices of users visiting said space (i.e., information transmitting from "Information Origin" to "Mobile Station A" and/or "Mobile Station B"); the arrangement comprising:

record means for keeping an on-going record of which mobile devices, if any, hold or are likely to be holding the data item (col. 6, lines 9-17);

first retrieval means for seeking to retrieve the data item to the first user's mobile device by transfer from another mobile device (i.e., transmitting data item from one to another mobile device within a vicinity) and including enquiry means for carrying out an enquiry limited to mobile devices that, according to said record, hold or are likely to be holding the data item (col. 6, lines 9-17);

second retrieval means for retrieving the data item to the first user's mobile device by transfer from the service system (i.e., data item is transferred from "Information Origin" to either "Mobile Station A" and/or "Mobile Station B").

Honda fails to disclose:

control means for organizing retrieval of the data item by first causing the first retrieval means to seek to retrieve the data item and then, if this is unsuccessful, causing the second retrieval means to retrieve the data item.

In a similar endeavor, Lehtikoinen discloses a system and method for accessing local services with a mobile terminal. Lehtikoinen further discloses control means for organizing retrieval of the data item by first causing the first retrieval means to seek to retrieve the data item and then, if this is unsuccessful, causing the second retrieval means to retrieve the data item (col. 7, lines 1-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve the method of retrieving the data item by having an alternative option to retrieve data if the first option fails.

**Regarding claims 2, and 17,** Honda and Lehtikoinen disclose a method, and an arrangement according to claims 1, and 16 as described above. Honda further discloses wherein the data item is associated with a location in said space, step (a) being initiated as the user approaches or is at that location (i.e., determining whether or not the mobile station is within the range of the information origin) and including carrying out an enquiry limited to mobile devices that are, or are likely to be, near the first user or said location, to identify a mobile device, if any, holding the data item (i.e., determining that the mobile station C605 would receive information other than mobile stations A601 and A603 which are holding or likely to be holding information and ready to transfer to mobile station C605).

**Regarding claims 4, and 19,** Honda, and Lehtikoinen disclose a method, and an arrangement according to claims 2, and 17 as described above. Honda further discloses wherein said enquiry is limited to mobile devices near the mobile device of the

first user or near the location associated with the data item, by monitoring the locations of the mobile devices in said space (col. 2, line 58 – col. 3, line 7).

**Regarding claims 9, and 24**, Honda, and Lehtikainen disclose a method, and an arrangement according to claims 1, and 16 as described above. Honda further discloses wherein said on-going step comprises tracking at least the first one of:

transfers of the data item from the service system to a mobile device (i.e., transfer data from "Information Origin" to "Mobile Station A601" and/or "Mobile Station B603");

transfers of the data item between mobile devices (i.e., transfer between other devices to "Mobile station C605"); and

deletions of the data item from a mobile device (col. 5, lines 34-50).

**Regarding claims 10, and 25**, Honda, and Lehtikainen disclose a method, and an arrangement according to claims 1, and 16 as described above. Honda also discloses wherein said on-going step comprises at least the first one of:

periodically making an inventory of items currently held by each mobile device (col. 3, lines 8-23);

recording incremental changes to the inventory of each mobile devices as items are added/removed (col. 5, lines 34-50).

**Regarding claims 11, and 26**, Honda, and Lehtikainen disclose a method, and an arrangement according to claims 1, and 16 as described above. The cited references do not specifically teach wherein in step (a) said enquiry is carried out by the first user's mobile device. However, it would have been obvious to one skilled in the art

that since the first user's mobile device would like to request and receive desired information because the first user's mobile device should carry out an enquiry to determine if there are any data items available to retrieve.

**Regarding claims 12, and 27**, Honda, and Lehtikoinen disclose a method, and an arrangement according to claims 1, and 16 as described above. Honda further discloses wherein in step (a) said enquiry is carried out by the service system at the prompting of the first user's mobile device, the service system identifying back to the first user's mobile device at least one device holding the data item where the enquiry identifies any such device (col. 6, lines 9-17).

**Regarding claims 15, and 30**, Honda and Lehtikoinen disclose a method, and an arrangement according to claims 1, and 16 as described above. Both references, however, do not specifically teach wherein a transfer effected in step (a) is effected using a communications mechanism that is different to that used for a transfer effected in step (b). It is however obvious to one skill in the art that the communications mechanism between step (a) and (b) is different.

7. **Claims 3, 5-7, 18, 20-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda in view of Lehtikoinen, and further in view of Fraki et al. (hereinafter "Fraki") (US 2002/0161666 A1).

**Regarding claims 3, and 18**, Honda, and Lehtikoinen, disclose a method, and an arrangement according to claims 2, and 17 as described above, except wherein said enquiry is limited to mobile devices near the mobile device of the first user by having

that device make the enquiry by using a short-range communications means to ask other mobile devices if they have the data item.

In a similar endeavor, Fraki discloses a method and system for administering digital collectible cards. Fraki further discloses wherein said enquiry is limited to mobile devices near the mobile device of the first user by having that device make the enquiry by using a short-range communications means to ask other mobile devices if they have the data item (paragraph 0020).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Honda, and Lehtikainen's method of retrieving data item within a local vicinity with an enquiry step in order to ensure that one of the mobile devices within range is ready to transmit information over to other devices.

**Regarding claims 5, and 20**, Honda, and Lehtikainen disclose a method, and an arrangement according to claims 2, and 17 as described above, except further discloses wherein said enquiry is limited to mobile devices likely to be near the mobile device of the first user by pre-defining a set of mobile devices which are associated with users belonging to the same visit group.

Fraki further discloses wherein said enquiry is limited to mobile devices likely to be near the mobile device of the first user by pre-defining a set of mobile devices which are associated with users belonging to the same visit group (paragraph 0076, i.e., both users are detected in the same vicinity and agreed to make communications).

**Regarding claims 6, and 21,** Honda, and Lehtikoinen disclose a method, and an arrangement according to claims 2, and 17 as described above. Fraki also discloses in step (a) said enquiry is carried out by the first user's mobile device (paragraph 0076).

**Regarding claims 7, and 22,** Honda, and Lehtikoinen disclose a method, and an arrangement according to claims 2, 17 as described above. Fraki also discloses in step (a) said enquiry is carried out by the service system at the prompting of the first user's mobile device, the service system identifying back to the first user's mobile device at least one device holding the data item where the enquiry identifies any such device (paragraphs 0077-0078).

8. **Claims 13 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda in view of Lehtikoinen, and further in view of Sato et al. (hereinafter "Sato") (US 2004/0027619 A1).

**Regarding claims 13, and 28,** Honda, and Lehtikoinen disclose a method, and an arrangement according to claims 1, and 16 as described above. Honda further discloses multiple data items each with a respective associated location in said space are available from the service system (i.e., "Information Origin" transmit information to "Mobile Station A601" and/or "Mobile Station A603"), except wherein, the method further comprising an on-going process in which said space is treated as divided into zones and, for each zone, the service system causes the mobile devices in the zone to load data items associated with locations in that zone beyond the normal needs of the

devices whereby to increase the likelihood of step (a) being successfully effected from a mobile device in the same zone as the first-user's mobile device.

In a similar endeavor, Sato discloses an information relay terminal and information distribution server. Sato further discloses the method further comprising an on-going process in which said space is treated as divided into zones and, for each zone, the service system causes the mobile devices in the zone to load data items associated with locations in that zone beyond the normal needs of the devices whereby to increase the likelihood of step (a) being successfully effected from a mobile device in the same zone as the first-user's mobile device (paragraphs 0065-0070).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the step of load data items associated with locations so that other mobile devices or users would potentially use the received information more efficiently.

9. **Claims 14 and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda in view of Lehtikoinen, and further in view of Sato.

**Regarding claim 14**, Honda discloses a method of retrieving a data item to a mobile device carried by a first user visiting a real-world space, the data item being one of a plurality of data items available from a service system to mobile devices of users visiting the space, each one of said plurality of data items having a respective associated location in said space, the method comprising:

(a) seeking to retrieve the data item to the first user's mobile device by transfer from another mobile device in said space (col. 7, lines 9-17 teaches information is transferred to the mobile station C605 via the mobile stations other than the stations A601 and B603 means that other mobile stations that are holding or likely to be holding the data item that is needed to transfer to mobile station C605);

Honda fails to disclose:

(b) in the event that (a) is unsuccessful, retrieving the data item to the first user's mobile device by transfer from the service system the method further comprising:

an on-going process in which said space is treated as divided into zones and, for each zone, upon a mobile device exiting the zone, it transfers the data items it holds that have associated locations in the zone being exited to devices, if any, still in said zone to increase the likelihood of (a) being successfully effected from a mobile device in the same zone as the first-user's mobile device.

In a similar endeavor, Lehtikainen discloses a system and method for accessing local services with a mobile terminal. Lehtikainen further discloses in the event that is unsuccessful, retrieving the data item to the first user's mobile device by transfer from the service system (col. 7, lines 1-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve the method of retrieving the data item by having an alternative option to retrieve data if the first option fails.

Furthermore, Sato discloses an information relay terminal and information distribution server. Sato further discloses an on-going process in which said space is

treated as divided into zones and, for each zone, upon a mobile device exiting the zone, it transfers the data items it holds that have associated locations in the zone being exited to devices, if any, still in said zone to increase the likelihood of (a) being successfully effected from a mobile device in the same zone as the first-user's mobile device (paragraphs 0065-0070).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the step of load data items associated with locations so that other mobile devices or users would potentially use the received information more efficiently.

**Regarding claim 29**, Honda discloses an arrangement for retrieving a data item to a mobile device carried by a first user visiting a real-world space, the data item being one of a plurality of data items available from a service system to mobile devices of users visiting the space, each one of said plurality of data items having a respective associated location in said space, the arrangement comprising:

first retrieval means for seeking to retrieve the data item to the first user's mobile device by transfer from another mobile device (i.e., Mobile stations other than A601 and A603);

second retrieval means for retrieving the data item to the first user's mobile device by transfer from the service system (i.e., "Information Origin");

Honda fails to disclose:

control means for organizing retrieval of the data item by first causing the first retrieval means to seek to retrieve the data item and then, if this is unsuccessful, causing the second retrieval means to retrieve the data item; and

transfer means for executing on-going process in which said space is treated as divided into zones and, for each zone, upon a mobile device exiting the zone, it transfers the data items it holds that have associated locations in the zone being exited to devices, if any, still in said zone to increase the likelihood of (a) the data item being successfully retrieved from a mobile device in the same zone as the first-user's mobile device.

In a similar endeavor, Lehtikainen discloses a system and method for accessing local services with a mobile terminal. Lehtikainen further discloses control means for organizing retrieval of the data item by first causing the first retrieval means to seek to retrieve the data item and then, if this is unsuccessful, causing the second retrieval means to retrieve the data item (col. 7, lines 1-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve the method of retrieving the data item by having an alternative option to retrieve data if the first option fails.

Furthermore, Sato discloses an information relay terminal and information distribution server. Sato further discloses transfer means for executing on-going process in which said space is treated as divided into zones and, for each zone, upon a mobile device exiting the zone, it transfers the data items it holds that have associated locations in the zone being exited to devices, if any, still in said zone to increase the

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likelihood of (a) the data item being successfully retrieved from a mobile device in the same zone as the first-user's mobile device (paragraphs 0065-0070).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the step of load data items associated with locations so that other mobile devices or users would potentially use the received information more efficiently.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Spratt (US 6,819,908 B2)

Spratt et al. (US 6,859,639 B2)

Spratt et al. (US 6,999,717 B2)

Spratt et al. (US 6,757,518 B2)


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Cai whose telephone number is (571) 272-7798. The examiner can normally be reached on Monday-Friday; 9:00-6:00; alternating Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Wayne Cai  
Examiner  
Art Unit 2617



ELISEO RAMOS-FELICIANO  
PRIMARY EXAMINER